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Biography of Capt. Ericsson.

The success of the *Monitor* in defeating the frigate *Merrimac* has naturally created a desire in the minds of our people to become acquainted with the history of the inventor whose original mind designed the little iron-sided champion of the Union fleet. We have therefore prepared the following brief biography, obtained from reliable sources, accompanied with an engraving from a photographic likeness.

Capt. John Ericsson is a native of the country of Gustavus Adolphus, and is a true Scandanavian, having been born in 1803 in the Province of Vermeland among the iron mountains of Sweden. His father was a mining proprietor, so that in his youth he had ample opportunities to watch the operations of machinery.

CAPT. JOHN ERICSSON, THE DESIGNER OF THE "MONITOR."

When quite young he exhibited a strong predilection for scientific and mechanical pursuits; he was an expert draughtsman, and made several philosophical instruments and miniature machines before he was eleven years of age. The celebrated Count Platen, who was a distinguished civil engineer and an intimate friend of Bernadotte the king of Sweden, having heard of Ericsson's precocious mechanical talents, went to see him. After carefully examining the various plans and drawings which the youth exhibited on this occasion, the Count handed them back to him, simply observing, in an impressive manner, "Continue as you have commenced, and you will one day produce something extraordinary." These few words of kind encouragement from so distinguished a personage sunk deeply into the mind of the young mechanic, and confirmed him in the choice of that career upon which he had entered.

Soon after this interview young Ericsson was entered as a cadet in the corps of Swedish engineers, and at the age of twelve years he was appointed an engineer under Count Platen, in the construction of Grand Ship Canal, which unites the North Sea with the Baltic. This great canal was chiefly built by the labor of the soldiers of the army, and young Ericsson was required to set out the work for about 600 of them. As the work on this canal was only conducted during the summer months, he was occupied in winter with his pen and pencil in devising plans and making drawings. There are now many important works on the canal constructed after drawings made by Ericsson at this early age.

He afterward entered the Swedish army as a lieutenant at seventeen years of age, rose to be captain and was chosen as a military surveyor of the North Highlands of Sweden. There are in the government archives at Stockholm maps, executed by his own hands, of 50 square miles of territory.

While thus occupied his mind was also engaged on his most favorite topic—mechanical invention, especially the power of highly-heated gases derived directly from combustion. The Colonel of his regiment was his firm friend, and was captivated with experiments he made on a small engine operated with the heated products of Swedish pinewood as a substitute for steam. It was supposed that England was the most favorable country for the development of this new motor, and liberty was obtained from the king to visit London, where Ericsson arrived in May, 1826. Here he fixed his abode, and drew upon the resources of his mechanical genius for his support. He soon brought out a number of new inventions, especially an improved boiler on the principal of *artificial draft*, for the building of which he subsequently associated himself with Mr. John Braithwaite. While thus engaged, in 1829, the Liverpool and Manchester Railway Company offered a prize for the best locomotive engine, to be tested on the small portion of the railway then completed.—Ericsson, not willing to allow this occasion to escape him, immediately set to work, planned the engine, executed the working drawings, and caused the patterns to be made, and the whole machine was completed within seven weeks. The day of trial arrived. Three engines entered the lists for the prize, namely, the *Rocket*, by George Stephenson; the *Novelty*, by Ericsson, and the *Sanspareil*, by Timothy Hackworth.—This was the most important railway trial that ever took place. The *Novelty* was furnished with a bellows draft and winding flue boiler. With its tank it weighed only 3 tuns 17 cwt., while the *Rocket* weighed, with tank, 7 tuns 9 cwt. The latter was the only engine which fulfilled the conditions required, but the London *Examiner* of Oct. 6, 1829, describing the trial, stated that the *Novelty* attracted universal admiration on account of its beauty and the work which such a small engine performed. It darted along at the rate of 30 miles per hour, and it drew a load of 28.5 tuns—its own weight included—at an average speed of 8 miles per hour.

The greatest improvement ever applied to steamships of war is due, we understand, to Capt. Ericsson—we mean the screw propeller and the arranging of all the machinery under the water line. The screw is an old device, but it had been laid aside as an entire failure, until he resuscitated it and proved its utility on a small boat on the river Thames, which the jolly watermen called *The Flying Devil*. He invited the Lords of the British Admiralty to take a trip in this little vessel, for the purpose of showing them how the screw operated, and to give an explanation of the machinery, and the advantages of placing it below the water line, out of the reach of shot. The Admiralty authorities took the trip, but Sir William Simonds, then Chief Naval Constructor, concluded the interview by asserting it was impossible to steer a war vessel having a screw placed at the stern.

Such was the bright conclusion arrived at twenty-six years ago, respecting the merits of the screw by the leading naval constructor in England. The only steam vessels then used in the Britsh Navy had paddle wheels, and a considerable portion of their machinery was above the water line. Not a paddle-wheel steamer

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has been built for that navy in fifteen years. There were two Americans who had examined Captain Ericsson's drawings, and had taken a trip on his little propeller, and they appreciated its merits. One of these gentlemen was Francis B. Ogden, Esq., our Consul at Liverpool; the other, Commodore Robert F. Stockton, U. S. N. Through the influence of the latter Capt. Ericsson came to the United States in 1839, and in 1841 became engaged with him in building the U. S. steam frigate *Princeton*—the first successful propeller war vessel ever constructed for any government—with all its machinery under the water line. Bennet Woodcroft, Esq., of the British Patent Office, in his treatise on screw propulsion, gives Capt. Ericsson the praise which he merits, and in France he is called the father of screw propulsion applied to war vessels, as he designed the *Pomone*, the first screw vessel in the French navy.

The inventive mind of Capt. Ericsson has been engaged on various mechanical objects. He was among the earliest constructors of steam fire engines, and obtained the gold medal of the New York Mechanics' Institute, in 1842, for the best design of such engine. For several years past his name has been prominently before the country in connection with the caloric engine, and it has become deservedly famous once more by the *Monitor*. Our Naval Department selected his design as one of the successful three accepted, according to advertised proposals last year for iron-vessels. He signed the contract for its construction on the 5th of last October, and she was launched on the 31st of December. The *Monitor* was completed just in the nick of time to save our entire blockading squadron at Fortress Monroe from destruction, and thus redeemed the credit of our navy. What the *Monitor* did in Hampton Roads, March 8, 1862, neet not now be repeated. Her success electrified our people, and they feel grateful to the inventor whose genius and mechanical skill have been devoted to the construction of this invulnerable floating battery.

Capt. Ericsson is a profound geometrician, and has a most original and active mind. He is now 59 years of age, but looks to be fifteen years younger. He is above the middle hight, and has a strong and robust frame. In youth he has been fair in complexion, like "the blue-eyed warriors of the Gothic North;" and, judging from his appearance, he will live another generation.

NOTES ON MILITARY AND NAVAL AFFAIRS.

CAPTURE OF BEAUFORT, N. C.

In our last number we announced the capture of Newbern, N. C., after a most brilliant attack upon its intrenchments by the Federal troops. Surprise is expressed that the Confederates did not make a more desperate resistance. One of their fortifications was found to be a formidable work, well armed, and if the garrison had fought with a hearty love for their cause the loss of life among our brave troops must have been terrible. It is very evident that the Confederates in North Carolina have no zeal for Jeff's cause, and would gladly attach themselves once more to the glorious old ensign if they could safely fall in under its folds. The State of North Carolina feels the loss of the Northern market for the sale of its valuable products of wood, pitch, resin, tar, turpentine, &c., and can hope for little prosperity so long as the rebellion holds out against the government, which requires a rigid blockade of her ports. After the capture of Newbern, Gen. Burnside ordered a movement upon Beaufort, a town of about 2,000 inhabitants and a port of entry on the seaboard. This place is defended by Fort Macon, a work of considerable strength costing about $450,000. On the approach of the Federal forces the place was evacuated, and report says the fort was blown up with all its armament. Our readers will remember that the steamer *Nashville* put into the port of Beaufort, having escaped the vigilance of the blockade. This steamer was principally owned in New York, and was seized in one of the Southern ports during the early part of our troubles. It is said she has again made her escape by running the blockade. The capture of Beaufort is of great importance, as its harbor is of sufficient depth to accommodate large-sized vessels. Gen. Burnsides operations thus far have been marked by prudence and energy, and the President has but expressed the general voice of the whole people toward the gallant officer in promoting him to the rank of a major general.

SEVERE BATTLE NEAR WINCHESTER, VA.

On Saturday, March 23d, the Confederates, under Generals Jackson, Longstreet and Smith, advanced upon Winchester, Va., and drove in the Federal pickets, and with a battery of artillery commenced playing upon our troops. At night both armies drew up in front of each other, and awaited morning to renew the contest. The Confederate force was estimated at seven thousand infantry, twenty-eight pieces of artillery and twelve hundred cavalry, and were reinforced on Sunday morning by five thousand more. The Union troops did not exceed ten thousand, being a portion of Gen. Banks's division, who were then under command of the brave and gallant Gen. Shields. There the enemy were strongly posted in woods and behind a stone wall, and their artillery was posted on eminences on both sides of their left wing. Our whole artillery force engaged consisted of four batteries, of twenty-four pieces in all. The contest raged furiously till three o'clock in the afternoon, the fighting being done chiefly by the artillery and musketry, at a range of not more than three or four hundred yards, and often much less. The Confederates on our right undertook to capture Doane's battery by a charge. The first effort was nearly successful, but the heavy discharge of grape compelled them to retire in confusion. A second and weaker attempt likewise failed, and the enemy fell back with loss, behind the stone parapet. Gen. Tyler now ordered his brigade to charge the enemy's batteries on the left, and a most deadly encounter followed. Twice our men reeled under the storm; but in the third effort they routed the Confederates with tremendous slaughter and amid loud cheering. Our men rushed forward with yells, when a panic among the enemy ensued. Our troops followed, and drove them till dark, capturing three guns, three caissons, muskets, equipments, &c., innumerable. The loss on both sides is represented as very great, and the defeat of the enemy complete. We regret to hear that Gen. Shields was severely wounded in the arm during the early part of the battle, and it is thought he would need to have it amputated. The latest intelligence states that Gen. Banks was pursuing the enemy, that they abandoned wagons along the road filled with dead and dying; the houses on the route were found crowded with the wounded and dead, and the dwellings in the towns adjacent to the battle field of Sunday were also found filled with the wounded. Our artillery was making terrible havoc among the enemy in their flight, and the route bids fair to be one of the most dreadful of the war. It is also reported that Gen. Banks has overtaken and destroyed two hundred of Jackson's wagons.

THE MORTAR FLEET.

Information about Porter's mortar fleet, which is now in the Gulf of Mexico, is looked for every day. The impression prevailed in some quarters that it had already captured the city of New Orleans, but we see nothing in these reports but vague rumors, which it is useless to put in circulation. A few days more, at best, will bring authentic knowledge of its operations; therefore, a little patience is commendable. It is quite certain that this formidable fleet will make a loud noise somewhere.

THE SECRETARY OF WAR AND THE NEWSPAPERS.

The Secretary of War announces his determination to hold all newspaper publishers to a strict account for any infringement of his military order which requires of them to withhold the publication of information concerning army movements, and has established a sort of court martial for the trial of all delinquents. The press should be exceedingly cautious not to develop any plans or movements such as may be useful to the enemies of the government. There are enemies enough in camp, and at the seat of war, ready to convey all possible information about our army movements without the greater publicity of the press, whose mission it should be to strengthen and not to betray the government.

HEAVY PROJECTILES.

The Fort Pitt Works, at Pittsburgh, have recently sent forward several immense projectiles for the "Union" and "Floyd" guns at Fortress Monroe. Those for the "Union" gun are of the elongated pattern, and those for the "Floyd" round. These balls are cast so as to secure even greater strength than if made solid, the core being but four inches in diameter. This opening is filled with lead, the ball when complete weighing four hundred and thirty pounds. They are not made of the common metal used in other shot and shell, but of the very best quality of gun iron—almost as hard as chilled iron, and nearly as tough as wrought iron. The heavy gates are turned off in a lathe, and the balls are finished up in the ordinary "ball mill," leaded and shipped. It is reported that the "Union" gun is to be transferred to the *Monitor*, and the dispatch with which the projectiles for it are being hurried up, would go to show that the rumor may not be altogether without foundation, although we incline to the opinion that they will be placed on a larger-sized vessel.

ENGLISH GUNS.

We stated in our last number that not a single Armstrong gun had ever fallen into possession of the secessionists, as was alledged by the daily press. Armstrong guns are made only for the British government. The foreign rifled cannon obtained by them are Blakely's. One of these guns is now in the navy yard at Washington, which was captured at the Evansport battery on the Potomac. The gun is a splendid piece, weighing 7,542 pounds, and bears the inscription, "Blakely's patent, 1861," thus showing it to be of English manufacture. It is calculated to carry a 7-inch shell or a 159-pound rifled ball. It was found loaded with two shells, which were taken out at the Ordnance Department. It had also been spiked with a rat-tail file, which was driven through the vent, and is now in as good condition as when first brought into the field.

WHISKY VS. CANNON.

In a recent proclamation Governor Brown of Georgia commands the people of that State to cease the manufacture of ardent spirits after the 15th of March, on pain of having their stills seized for the use of the government. He also forbids its transportation by the State road. The proclamation concludes as follows:—"We need more cannon with which to meet the enemy. Gun-metal used in the manufacture of field pieces, is composed of ninety parts of copper and ten of tin. The copper stills of Georgia, which are now heavy columbiads of destruction aimed against our own people, would, if manufactured into cannon, make many a battery of six-pounders, to be turned against the enemy. Upon this material thus employed in our holy cause, we could invoke God's blessing. Upon it as now employed we can only expect his curse."

NEW IRON-CLAD GUNBOATS.

We understand that Capt. Fox, Assistant Secretary of the Navy, has recently visited this city to look after the immediate construction of four floating batteries exactly, or nearly, like the *Monitor*, and the preliminary arrangements have been made with Captain Ericsson. The batteries are to be built with all possible dispatch. Only one improvement, and that a trifling one, can be pointed out. It is the substitution of a cylindrical, instead of a square form in the little pilot house. Another alteration of doubtful expediency has been suggested, viz., the transfer of the pilot house from its place about a rod from the turret, to the top of the turret, giving to that "Yankee cheese box" the appearance of a telescope with one joint drawn out.

The total number of torpedoes found in the river and on its banks at Columbus is over four hundred. They were water-logged, and therefore were harmless.

Infernal Machines in the Mississippi.

A letter from Columbus, Ky., gives the following account of several infernal machines found near that place, which had been constructed under the authority of Right Rev. Major-General Bishop Polk:—

No. 1 is a machine intended for submersion in water, of a cylindrical form and built of No. 16 sheet iron. It is about five feet in length and fifteen inches in diameter, ending conically. In the interior is a bag, presumed to be impervious to water, and containing the explosive materials. One end of the bag contains a mouth piece in which is inserted a tube perhaps an inch in diameter. There is a nipple on the end of this tube, arranged for the reception of a percussion cap, on which a hammer is made to act by means of a simple lever arrangement.

No. 2 is intended for land uses, and is made of cast iron. It is shaped like an old-fashioned tea kettle in some respects, and has a sort of cap on the top similar to the lid of an iron tea kettle, which is fastened to it by a set of iron of screws. About two inches from

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